Connecting via Winsock to STN

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TERMINAL (ENTER 1, 2, 3, OR ?):2

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Web Page URLs for STN Seminar Schedule - N. America
NEWS
                "Ask CAS" for self-help around the clock
NEWS
     2
                CA/CAPLUS - Russian Agency for Patents and Trademarks
NEWS
     3
        FEB 25
                 (ROSPATENT) added to list of core patent offices covered
NEWS
        FEB 28
                PATDPAFULL - New display fields provide for legal status
                data from INPADOC
NEWS 5
        FEB 28
                BABS - Current-awareness alerts (SDIs) available
NEWS 6 FEB 28
                MEDLINE/LMEDLINE reloaded
NEWS 7 MAR 02
                GBFULL: New full-text patent database on STN
NEWS 8 MAR 03
                REGISTRY/ZREGISTRY - Sequence annotations enhanced
NEWS 9 MAR 03 MEDLINE file segment of TOXCENTER reloaded
NEWS 10 MAR 22 KOREAPAT now updated monthly; patent information enhanced
NEWS 11 MAR 22
                Original IDE display format returns to REGISTRY/ZREGISTRY
NEWS 12 MAR 22
                PATDPASPC - New patent database available
NEWS 13 MAR 22
                REGISTRY/ZREGISTRY enhanced with experimental property tags
NEWS 14 APR 04
                EPFULL enhanced with additional patent information and new
                fields
NEWS 15 APR 04
                EMBASE - Database reloaded and enhanced
                New CAS Information Use Policies available online
NEWS 16 APR 18
NEWS 17 APR 25
                Patent searching, including current-awareness alerts (SDIs),
                based on application date in CA/CAplus and USPATFULL/USPAT2
                may be affected by a change in filing date for U.S.
                applications.
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NEWS EXPRESS JANUARY 10 CURRENT WINDOWS VERSION IS V7.01a, CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP), AND CURRENT DISCOVER FILE IS DATED 10 JANUARY 2005

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NEWS HOURS STN Operating Hours Plus Help Desk Availability
NEWS INTER General Internet Information
NEWS LOGIN Welcome Banner and News Items
NEWS PHONE Direct Dial and Telecommunication Network Access to STN
NEWS WWW CAS World Wide Web Site (general information)
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FILE 'HOME' ENTERED AT 19:41:13 ON 26 APR 2005

=> file reg

COST IN U.S. DOLLARS

SINCE FILE TOTAL ENTRY SESSION 0.21

0.21

FULL ESTIMATED COST

FILE 'REGISTRY' ENTERED AT 19:41:30 ON 26 APR 2005 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS. COPYRIGHT (C) 2005 American Chemical Society (ACS)

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STRUCTURE FILE UPDATES: 25 APR 2005 HIGHEST RN 849177-50-0 DICTIONARY FILE UPDATES: 25 APR 2005 HIGHEST RN 849177-50-0

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 18, 2005

Please note that search-term pricing does apply when conducting SmartSELECT searches.

\*\*\*\*\*\*\*\*\*\*\*\*\*

The CA roles and document type information have been removed from \*

the IDE default display format and the ED field has been added.

effective March 20, 2005. A new display format, IDERL, is now available and contains the CA role and document type information.

\*\*\*\*\*\*\*

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more information enter HELP PROP at an arrow prompt in the file or refer to the file summary sheet on the web at: http://www.cas.org/ONLINE/DBSS/registryss.html

Uploading C:\Program Files\Stnexp\Queries\10789276.str

25 13 ĺ8 19

chain nodes :

23 25

ring nodes :

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22

chain bonds : 13-25 16-23 ring bonds :

1-2 1-6 1-15 1-18 2-3 2-11 3-4 3-14 4-5 5-6 5-7 6-10 7-8 8-9 9-10

11-12 12-13 13-14 15-16 16-17 17-18 17-19 18-22 19-20 20-21

exact/norm bonds :

1-2 1-6 1-15 1-18 3-4 4-5 13-25 15-16 16-17 16-23 17-18 17-19 18-22

19-20 20-21 21-22 normalized bonds :

2-3 2-11 3-14 5-6 5-7 6-10 7-8 8-9 9-10 11-12 12-13 13-14

isolated ring systems :

containing 1 :

G1:C,N

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom 11:Atom 12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:Atom 18:Atom 19:Atom 20:Atom 21:Atom 22:Atom 23:CLASS 25:CLASS

50 ANSWERS

#### L1STRUCTURE UPLOADED

=> s 11

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100.0% PROCESSED 429 ITERATIONS

INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)

SEARCH TIME: 00.00.01

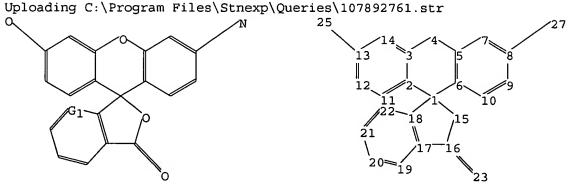
FULL FILE PROJECTIONS: ONLINE \*\*COMPLETE\*\*

\*\*COMPLETE\*\* BATCH

PROJECTED ITERATIONS: 7338 TO 9822 PROJECTED ANSWERS: 6930 TO 9350

L250 SEA SSS SAM L1

=>



chain nodes :
23 25 27
ring nodes :

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22

chain bonds : 8-27 13-25 16-23

ring bonds :

exact/norm bonds :

1-2 1-6 1-15 1-18 3-4 4-5 8-27 13-25 15-16 16-17 16-23 17-18 17-19

18-22 19-20 20-21 21-22

normalized bonds :

2-3 2-11 3-14 5-6 5-7 6-10 7-8 8-9 9-10 11-12 12-13 13-14

isolated ring systems :

containing 1:

### G1:C,N

#### Match level :

### L3 STRUCTURE UPLOADED

=> s 13

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SAMPLE SCREEN SEARCH COMPLETED - 44 TO ITERATE

100.0% PROCESSED 44 ITERATIONS

11 ANSWERS

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE \*\*COMPLETE\*\*

BATCH \*\*COMPLETE\*\*

PROJECTED ITERATIONS: PROJECTED ANSWERS:

483 TO 1277 22 TO 418

L4 11 SEA SSS SAM L3

# => d scan

L4 11 ANSWERS REGISTRY COPYRIGHT 2005 ACS on STN

IN Spiro[isobenzofuran-1(3H),9'-[9H]xanthene]-2'-propanoic acid,
6'-[(1-carboxyethyl)(carboxymethyl)amino]-7'-[2-[2-[(1-carboxyethyl)(carboxymethyl)amino]-5-methylphenyl]ethoxy]-3'-hydroxy-3-oxo-(9CI)

MF C42 H40 N2 O15

$$CH_2-CO_2H$$
 $Me$ 
 $N-CH-CO_2H$ 
 $O-CH_2-CH_2$ 
 $N-CH-CO_2H$ 
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 $Me$ 

\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):5

L4 11 ANSWERS REGISTRY COPYRIGHT 2005 ACS on STN

IN Spiro[isobenzofuran-1(3H),9'-[9H]xanthen]-3-one, 2'-bromo-6'- (dodecylphenylamino)-3'-hydroxy-, compd. with 4,4'-bipyridine (2:1) (9CI) MF C38 H40 Br N O4 . 1/2 C10 H8 N2

CM 1

CM 2

L4 11 ANSWERS REGISTRY COPYRIGHT 2005 ACS on STN

IN Spiro[isobenzofuran-1(3H),9'-[9H]xanthen]-3-one, 6'-[bis(1-cyclohexylethyl)amino]-3'-methoxy-2'-(phenylamino)- (9CI)

MF C43 H48 N2 O4

\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

L4 11 ANSWERS REGISTRY COPYRIGHT 2005 ACS on STN

IN Spiro[isobenzofuran-1(3H),9'-[9H]xanthene]-5-carboxylic acid,

2'-ethyl-6'-(ethylamino)-3'-hydroxy-7'-methyl-3-oxo- (9CI)

MF C26 H23 N O6

\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

L4 11 ANSWERS REGISTRY COPYRIGHT 2005 ACS on STN

MF C32 H28 Br N O4 . C14 H12 N2

CM 1

HO N- (
$$CH_2$$
) 5-Me

CM 2

L4 11 ANSWERS REGISTRY COPYRIGHT 2005 ACS on STN

IN Spiro[isobenzofuran-1(3H),9'-[9H]xanthene]-2'-propanoic acid,
6'-[bis(2-ethoxy-2-oxoethyl)amino]-7'-[2-[2-[bis(2-ethoxy-2-oxoethyl)amino]-5-methylphenyl]ethoxy]-3'-hydroxy-4'-methyl-3-oxo-, ethyl ester (9CI)

MF C51 H58 N2 O15

\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):0

=> s 13 ful

FULL SEARCH INITIATED 19:44:19 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 804 TO ITERATE

100.0% PROCESSED 804 ITERATIONS 214 ANSWERS

SEARCH TIME: 00.00.01

L5 214 SEA SSS FUL L3

=> file caplus

COST IN U.S. DOLLARS
SINCE FILE TOTAL
ENTRY SESSION
FULL ESTIMATED COST
163.05
163.26

FILE 'CAPLUS' ENTERED AT 19:44:28 ON 26 APR 2005 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS. COPYRIGHT (C) 2005 AMERICAN CHEMICAL SOCIETY (ACS)

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This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s 15

L6 106 L5

=> d l6 ibib hitstr abs 106

L6 ANSWER 106 OF 106 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1962:73970 CAPLUS

DOCUMENT NUMBER: 56:73970

ORIGINAL REFERENCE NO.: 56:14431i,14432h-i,14433a

TITLE: Paper chromatography of dyes. IV. Paper chromatography

and polarography of dye-metal coordination

AUTHOR(S): Tajiri, Hiromi
CORPORATE SOURCE: Osaka Custom-House

SOURCE: Kogyo Kagaku Zasshi (1960), 63, 122-7

CODEN: KGKZA7; ISSN: 0368-5462

DOCUMENT TYPE: Journal LANGUAGE: Unavailable

IT 6359-29-1, 3H-Xanthene-2-carboxylic acid, 9-(o-carboxyphenyl)-6-

(diethylamino) -3-oxo-(chromatography of)

RN 6359-29-1 CAPLUS

CN Spiro[isobenzofuran-1(3H),9'-[9H]xanthene]-2'-carboxylic acid, 6'-(diethylamino)-3'-hydroxy-3-oxo- (9CI) (CA INDEX NAME)

AB Paper chromatograms of 26 Cr-metalized dyes were compared with those of the starting non-metalized dyes. Suitable developing agents were 15% C5H5N, 60%HOAc, BuOH-C5H5N-H2O (5:3:5), and BuOH-HOAc-H2O(4:1:5). A minor portion of the dye combined with Cr is developed to give a different Rf value from that of the original dye, though the major portion remains absorbed at the original spot. The dye having no combination with Cr leaves no absorbed color at the original spot. This fact serves for examination of the presence of degree of the combination between the dye and Cr, and for examination of the reaction time necessary and sufficient for the reaction of dye and Cr. Also, polarograms of these moralized dyes were compared with those of the nonmetalized dyes. The polarograms of the Cr complexes show a decrease in the wave height when the chromophore in the dye takes no part in the combination, or a shift of the half-wave potential to the neg. side when the chromophore takes part. The shape of the waves before and after the reaction indicates that the reaction of azo mordant dyes proceeds first at one of the OH radicals and the azo radical, then at the other OH radical. Similar studies were made on Al-metalized dyes.

## => d 16 ibib hitstr abs 1-105

L6 ANSWER 1 OF 106 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2004:722950 CAPLUS

DOCUMENT NUMBER: 141:244924

TITLE: Dye compounds exhibiting different colors in

crystalline form and in liquid form and their use in

imaging members and imaging method

INVENTOR(S): Allen, Richard M.; Filosa, Michael P.; Telfer, Stephen

J.

PATENT ASSIGNEE(S): USA

SOURCE: U.S. Pat. Appl. Publ., 9 pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent LANGUAGE: English

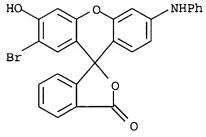
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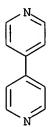
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RN
     748803-05-6 CAPLUS
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CN
     (phenylamino) -, compd. with 4,4'-bipyridine (2:1) (9CI)
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CM 2

CRN 553-26-4 CMF C10 H8 N2



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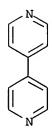
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CM 2

CRN 553-26-4 CMF C10 H8 N2



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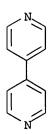
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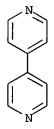
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RN 748803-13-6 CAPLUS
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(CA INDEX NAME)

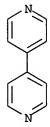
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CM 2

CRN 553-26-4 CMF C10 H8 N2

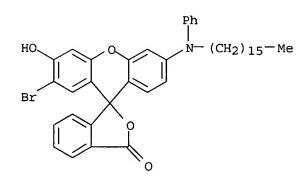


RN 748803-15-8 CAPLUS

CN Spiro[isobenzofuran-1(3H),9'-[9H]xanthen]-3-one, 2'-bromo-6'(hexadecylphenylamino)-3'-hydroxy-, compd. with 4,4'-bipyridine (2:1)
(9CI) (CA INDEX NAME)

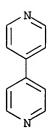
CM 1

CRN 748803-14-7 CMF C42 H48 Br N O4



CM 2

CRN 553-26-4 CMF C10 H8 N2



RN 748803-17-0 CAPLUS

CN Spiro[isobenzofuran-1(3H),9'-[9H]xanthen]-3-one, 2'-bromo-6'-

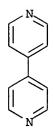
(diphenylamino)-3'-hydroxy-, compd. with 4,4'-bipyridine (2:1) (9CI) (CA INDEX NAME)

CM 1

CRN 748803-16-9 CMF C32 H20 Br N O4

CM 2

CRN 553-26-4 CMF C10 H8 N2



RN 748803-19-2 CAPLUS

CN Spiro[isobenzofuran-1(3H),9'-[9H]xanthen]-3-one, 4,5,6,7-tetrachloro-2'-hexyl-3'-hydroxy-6'-[(3-methylbutyl)phenylamino]-, compd. with 4,4'-bipyridine (2:1) (9CI) (CA INDEX NAME)

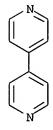
CM 1

CRN 748803-18-1 CMF C37 H35 Cl4 N O4

$$\begin{array}{c} \text{Ph} \\ \text{Me}_2\text{CH-CH}_2\text{-CH}_2\text{-N} \\ \text{Cl} \\ \text{Cl} \\ \text{Cl} \end{array} \\ \begin{array}{c} \text{OH} \\ \text{(CH}_2)_5\text{-Me} \\ \end{array}$$

CM 2

CRN 553-26-4 CMF C10 H8 N2



RN 748803-21-6 CAPLUS

CN Spiro[isobenzofuran-1(3H),9'-[9H]xanthen]-3-one, 4,5,6,7-tetrachloro-6'-(dodecylphenylamino)-2'-hexyl-3'-hydroxy-, compd. with 4,4'-bipyridine (2:1) (9CI) (CA INDEX NAME)

CM 1

CRN 748803-20-5 CMF C44 H49 C14 N O4

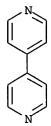
Me- 
$$(CH_2)_{11}$$
 OH

 $(CH_2)_{5}$  Me

 $(CH_2)_{5}$  Me

CM 2

CRN 553-26-4 CMF C10 H8 N2



RN 748803-23-8 CAPLUS

CN Spiro[isobenzofuran-1(3H),9'-[9H]xanthen]-3-one, 4,5,6,7-tetrachloro-6'[(2-ethylhexyl)phenylamino]-2'-hexyl-3'-hydroxy-, compd. with
4,4'-bipyridine (2:1) (9CI) (CA INDEX NAME)

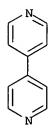
CM 1

CRN 748803-22-7 CMF C40 H41 Cl4 N O4

$$\begin{array}{c|c} \text{Et} & \text{Ph} \\ \mid & \mid & \text{OH} \\ \text{n-Bu-CH-CH}_2 - \text{N} & \text{OH} \\ \text{Cl} & \text{Cl} & \text{OH} \\ \end{array}$$

CM 2

CRN 553-26-4 CMF C10 H8 N2



RN 748803-26-1 CAPLUS

CN Spiro[isobenzofuran-1(3H),9'-[9H]xanthen]-3-one, 2'-bromo-3'-hydroxy-6'-(phenylamino)-, compd. with 2,9-dimethyl-1,10-phenanthroline (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 748803-04-5 CMF C26 H16 Br N O4

CM 2

CRN 484-11-7 CMF C14 H12 N2

RN 748803-27-2 CAPLUS

CN Spiro[isobenzofuran-1(3H),9'-[9H]xanthen]-3-one, 2'-bromo-6'-(hexylphenylamino)-3'-hydroxy-, compd. with 2,9-dimethyl-1,10-phenanthroline (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 748803-08-9 CMF C32 H28 Br N O4

HO N- (
$$CH_2$$
) 5-Me

CM 2

CRN 484-11-7 CMF C14 H12 N2

RN 748803-28-3 CAPLUS

CN Spiro[isobenzofuran-1(3H),9'-[9H]xanthen]-3-one, 4,5,6,7-tetrachloro-2'-hexyl-3'-hydroxy-6'-[(3-methylbutyl)phenylamino]-, compd. with 2,9-dimethyl-1,10-phenanthroline (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 748803-18-1 CMF C37 H35 Cl4 N O4

 $\begin{array}{c} \text{Ph} \\ \text{Me}_2\text{CH-CH}_2\text{-CH}_2\text{-N} \\ \text{Cl} \\ \text{Cl} \\ \text{Cl} \\ \text{O} \end{array}$ 

CM 2

CRN 484-11-7 CMF C14 H12 N2

RN 748803-29-4 CAPLUS

CN Spiro[isobenzofuran-1(3H),9'-[9H]xanthen]-3-one, 4,5,6,7-tetrachloro-2'-hexyl-3'-hydroxy-6'-[(3-methylbutyl)phenylamino]-, compd. with 1,10-phenanthroline (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 748803-18-1 CMF C37 H35 Cl4 N O4

$$\begin{array}{c} \text{Ph} \\ \text{Me}_2\text{CH}-\text{CH}_2-\text{CH}_2-\text{N} \\ \text{Cl} \\ \text{Cl} \\ \text{Cl} \end{array} \\ \begin{array}{c} \text{OH} \\ \text{(CH}_2)_5-\text{Me} \\ \\ \text{Cl} \\ \end{array}$$

CM 2

CRN 66-71-7 CMF C12 H8 N2

RN 748803-30-7 CAPLUS

CN Morpholine, 4-benzoyl-, compd. with 4,5,6,7-tetrachloro-2'-hexyl-3'-hydroxy-6'-[(3-methylbutyl)phenylamino]spiro[isobenzofuran-1(3H),9'-[9H]xanthen]-3-one (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 748803-18-1 CMF C37 H35 C14 N O4

$$\begin{array}{c} \text{Ph} \\ \text{Me}_2\text{CH}-\text{CH}_2-\text{CH}_2-\text{N} \\ \text{Cl} \\ \text{Cl} \\ \text{Cl} \end{array}$$

CM 2

CRN 1468-28-6 CMF C11 H13 N O2

RN 748803-31-8 CAPLUS

CN 1H-Indole, 1-acetyl-5-bromo-2,3-dihydro-, compd. with 4,5,6,7-tetrachloro-2'-hexyl-3'-hydroxy-6'-[(3-methylbutyl)phenylamino]spiro[isobenzofuran-1(3H),9'-[9H]xanthen]-3-one (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 748803-18-1 CMF C37 H35 Cl4 N O4

$$\begin{array}{c} \text{Ph} \\ \text{Me}_2\text{CH}-\text{CH}_2-\text{CH}_2-\text{N} \\ \text{Cl} \\ \text{Cl} \\ \text{Cl} \end{array} \\ \begin{array}{c} \text{OH} \\ \text{(CH}_2)_5-\text{Me} \\ \\ \text{Cl} \\ \end{array}$$

CM 2

CRN 22190-38-1 CMF C10 H10 Br N O

RN 748803-32-9 CAPLUS

CN Spiro[isobenzofuran-1(3H),9'-[9H]xanthen]-3-one, 4,5,6,7-tetrachloro-2'-hexyl-3'-hydroxy-6'-[(3-methylbutyl)phenylamino]-, compd. with 1-(phenylmethyl)-1H-imidazole (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 748803-18-1 CMF C37 H35 C14 N O4

$$\begin{array}{c} \text{Ph} \\ \text{Me}_2\text{CH}-\text{CH}_2-\text{CH}_2-\text{N} \\ \text{Cl} \\ \text{Cl} \\ \text{Cl} \\ \end{array}$$

CM 2

CRN 4238-71-5 CMF C10 H10 N2

RN 748803-33-0 CAPLUS

CN Spiro[isobenzofuran-1(3H),9'-[9H]xanthen]-3-one, 4,5,6,7-tetrachloro-2'-hexyl-3'-hydroxy-6'-[(3-methylbutyl)phenylamino]-, compd. with 5,6-dichloro-1-ethyl-2-methyl-1H-benzimidazole (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 748803-18-1 CMF C37 H35 Cl4 N O4

$$\begin{array}{c} \text{Ph} \\ \text{Me}_2\text{CH-CH}_2\text{-CH}_2\text{-CH}_2\text{-N} \\ \text{Cl} \\ \text{Cl} \\ \text{Cl} \\ \text{Cl} \\ \text{O} \end{array}$$

CM 2

CRN 3237-62-5 CMF C10 H10 C12 N2

RN 748803-34-1 CAPLUS

CN lH-Indole, 1-acetyl-2,3-dihydro-, compd. with 4,5,6,7-tetrachloro-2'-hexyl-3'-hydroxy-6'-[(3-methylbutyl)phenylamino]spiro[isobenzofuran-1(3H),9'-[9H]xanthen]-3-one (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 748803-18-1

CMF C37 H35 C14 N O4

$$\begin{array}{c} \text{Ph} \\ \text{Me}_2\text{CH-CH}_2\text{-CH}_2\text{-N} \\ \text{Cl} \\ \text{Cl} \\ \text{Cl} \\ \end{array} \\ \begin{array}{c} \text{OH} \\ \text{(CH}_2)_5\text{-Me} \\ \end{array}$$

CM 2

CRN 16078-30-1 CMF C10 H11 N O

RN 748803-35-2 CAPLUS

CN 1,4-Benzenedicarboxamide, N,N,N',N'-tetraethyl-, compd. with 4,5,6,7-tetrachloro-2'-hexyl-3'-hydroxy-6'-[(3-methylbutyl)phenylamino]spiro[isobenzofuran-1(3H),9'-[9H]xanthen]-3-one (1:2) (9CI) (CA INDEX NAME)

CM 1

CRN 748803-18-1 CMF C37 H35 Cl4 N O4

$$\begin{array}{c} \text{Ph} \\ \text{Me}_2\text{CH}-\text{CH}_2-\text{CH}_2-\text{N} \\ \text{Cl} \\ \text{Cl} \\ \text{Cl} \\ \text{O} \end{array}$$

CM 2

CRN 15394-30-6 CMF C16 H24 N2 O2

$$\begin{array}{c|c} & & & \\ & & \\ & & & \\ & & & \\ & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ &$$

RN 748803-36-3 CAPLUS

CN 2-Pyrrolidinone, 1-phenyl-, compd. with 4,5,6,7-tetrachloro-2'-hexyl-3'-hydroxy-6'-[(3-methylbutyl)phenylamino]spiro[isobenzofuran-1(3H),9'-[9H]xanthen]-3-one (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 748803-18-1 CMF C37 H35 Cl4 N O4

$$\begin{array}{c} \text{Ph} \\ \text{Me}_2\text{CH}-\text{CH}_2-\text{CH}_2-\text{N} \\ \text{Cl} \\ \text{Cl} \\ \text{Cl} \end{array} \\ \begin{array}{c} \text{OH} \\ \text{(CH}_2)_5-\text{Me} \\ \\ \text{Cl} \\ \end{array}$$

CM 2

CRN 4641-57-0 CMF C10 H11 N O

RN 748803-37-4 CAPLUS

CN Spiro[isobenzofuran-1(3H),9'-[9H]xanthen]-3-one, 4,5,6,7-tetrachloro-2'-hexyl-3'-hydroxy-6'-[(3-methylbutyl)phenylamino]-, compd. with 1-ethyl-2-phenyl-1H-benzimidazole (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 748803-18-1 CMF C37 H35 Cl4 N O4

$$\begin{array}{c} \text{Ph} \\ \text{Me}_2\text{CH-CH}_2\text{-CH}_2\text{-N} \\ \text{Cl} \\ \text{Cl} \\ \text{Cl} \\ \text{Cl} \\ \end{array}$$

CM 2

CRN 6528-75-2 CMF C15 H14 N2

RN 748803-38-5 CAPLUS

CN Spiro[isobenzofuran-1(3H),9'-[9H]xanthen]-3-one, 4,5,6,7-tetrachloro-2'-hexyl-3'-hydroxy-6'-[(3-methylbutyl)phenylamino]-, compd. with 1-hexyl-2-phenyl-1H-benzimidazole (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 748803-18-1 CMF C37 H35 Cl4 N O4

$$\begin{array}{c} \text{Ph} \\ \text{Me}_2\text{CH}-\text{CH}_2-\text{CH}_2-\text{N} \\ \text{Cl} \\ \text{Cl} \\ \text{Cl} \end{array}$$

Page 27

CM 2

CRN 476298-71-2 CMF C19 H22 N2

RN 748803-39-6 CAPLUS

CN Spiro[isobenzofuran-1(3H),9'-[9H]xanthen]-3-one, 4,5,6,7-tetrachloro-2'-hexyl-3'-hydroxy-6'-[(3-methylbutyl)phenylamino]-, compd. with 4,4'-(1,2-ethenediyl)bis[pyridine] (2:1) (9CI) (CA INDEX NAME)

CM 1

CRN 748803-18-1 CMF C37 H35 Cl4 N O4

$$\begin{array}{c} \text{Ph} \\ \text{Me}_2\text{CH}-\text{CH}_2-\text{CH}_2-\text{N} \\ \text{Cl} \\ \text{Cl} \\ \text{Cl} \end{array}$$

CM 2

CRN 1135-32-6 CMF C12 H10 N2

RN

748803-40-9 CAPLUS 1H-Indole, 2,3-dihydro-1-(1-oxopropyl)-, compd. with 4,5,6,7-tetrachloro-CN 2'-hexyl-3'-hydroxy-6'-[(3-methylbutyl)phenylamino]spiro[isobenzofuran-1(3H),9'-[9H]xanthen]-3-one (1:1) (9CI) (CA INDEX NAME)

CM1

CRN 748803-18-1 C37 H35 Cl4 N O4 CMF

$$\begin{array}{c} \text{Ph} \\ \text{Me}_2\text{CH}-\text{CH}_2-\text{CH}_2-\text{N} \\ \text{Cl} \\ \text{Cl} \\ \text{Cl} \\ \end{array}$$

CM 2

CRN 56857-92-2 CMF C11 H13 N O

GI

AB The dye compound I (R1-5, R7 = H, (un)substituted alkyl, (un)substitutedalkenyl, (un) substituted alkynyl, (un) substituted heterocycloalkyl, substituted carbonyl, acylamino, halogen, nitro, nitrilo, sulfonyl, aryl, substituted aryl, (un) substituted heteroaryl, (un) substituted oxygen, (un) substituted nitrogen, and (un) substituted sulfur; R6 = halogen, (un) substituted oxygen, (un) substituted nitrogen and (un) substituted sulfur; R8-11 = H, (un) substituted alkyl, (un) substituted alkenyl, (un) substituted alkynyl, (un) substituted heterocycloalkyl, substituted carbonyl, acylamino, halogen, nitro, nitrilo, sulfonyl, aryl, substituted aryl, (un) substituted heteroaryl, (un) substituted oxygen, (un) substituted nitrogen and (un) substituted sulfur; X1 = carbonyl, methylene, substituted methylene and sulfonyl; X2 = oxygen, (un) substituted nitrogen; X3 = oxygen, sulfur and (un) substituted nitrogen; X4 = carbon, nitrogen; and A = hydrogen-bond accepting group) are formed between hydrogen bond acceptors and phenolic dye compds. The imaging method comprises (a) providing an imaging member comprising a first image-forming layer including the dye compound in the crystalline form; and (b) converting at

portion of the compound to the liquid form in an imagewise pattern whereby an image is formed.

L6 ANSWER 32 OF 106 CAPLUS COPYRIGHT 2005 ACS on STN

Τ

ACCESSION NUMBER: 1996:719037 CAPLUS

DOCUMENT NUMBER: 126:86521

TITLE: Haloalkyl derivatives of blocked reporter molecules

and their use in analysis of metabolic activity in

cells

INVENTOR(S): Mao, Fei; Sabnis, Ram; Naleway, John; Olson, Nels;

Haugland, Richard P.

PATENT ASSIGNEE(S): Molecular Probes, Inc., USA

SOURCE: U.S., 20 pp., .Cont.-in-Part of US 5362628

CODEN: USXXAM

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5576424	Α	19961119	US 1994-336285	19941108
US 5362628	Α	19941108	US 1993-26633	19930305

US 38723 E 20050412 US 1997-910090 19970812
PRIORITY APPLN. INFO.: US 1991-749256 B1 19910823
US 1993-26633 A2 19930305

OTHER SOURCE(S): MARPAT 126:86521

IT 185195-71-5P 185195-76-0P 185195-77-1P

RL: ARG (Analytical reagent use); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation); USES (Uses)

(haloalkyl derivs. of blocked reporter mols. and their use in anal. of metabolic activity in cells)

RN 185195-71-5 CAPLUS

CN Benzenesulfonic acid, 4-(chloromethyl)-, 6'-[(2-amino-4-methyl-1-oxopentyl)amino]-3-oxospiro[isobenzofuran-1(3H),9'-[9H]xanthen]-3'-ylester, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 185195-76-0 CAPLUS

CN Benzamide, 4-(chloromethyl)-N-(6'-hydroxy-3-oxospiro[isobenzofuran-1(3H),9'-[9H]xanthen]-3'-yl)- (9CI) (CA INDEX NAME)

RN 185195-77-1 CAPLUS

CN Benzenesulfonamide, 4-(chloromethyl)-N-(6'-hydroxy-3-oxospiro[isobenzofuran-1(3H),9'-[9H]xanthen]-3'-yl)- (9CI) (CA INDEX NAME)

IT 3086-44-0, Rhodol

RL: RCT (Reactant); RACT (Reactant or reagent)
 (haloalkyl derivs. of blocked reporter mols. and their use in anal. of
 metabolic activity in cells)

RN 3086-44-0 CAPLUS

CN Spiro[isobenzofuran-1(3H),9'-[9H]xanthen]-3-one, 3'-amino-6'-hydroxy-(9CI) (CA INDEX NAME)

IT 185195-74-8P 185195-75-9P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(haloalkyl derivs. of blocked reporter mols. and their use in anal. of metabolic activity in cells)

RN 185195-74-8 CAPLUS

CN Carbamic acid, [1-[[(6'-hydroxy-3-oxospiro[isobenzofuran-1(3H),9'-[9H]xanthen]-3'-yl)amino]carbonyl]-3-methylbutyl]-, 1,1-dimethylethyl ester, (1S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 185195-75-9 CAPLUS

CN Benzenesulfonic acid, 4-(chloromethyl)-, 6'-[[2-[[(1,1-dimethylethoxy)carbonyl]amino]-4-methyl-1-oxopentyl]amino]-3-oxospiro[isobenzofuran-1(3H),9'-[9H]xanthen]-3'-yl ester, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

The subject invention provides substrates useful for analyzing the metabolic activity in cells by improving the retention of a detectable reporter mol. only in intact cells where a particular enzyme is present. In particular, improved retention results from a two-part process involving conjugation of haloalkyl-substituted derivs. of a reporter mol. with intracellular cysteine-containing peptides while unblocking the reporter mol. The substrates have the form XR-SPACER-REPORTER-BLOCK wherein BLOCK is a group selected to be removable by action of a specific analyte, to give REPORTER spectral properties different from those of the substrate; REPORTER is a mol. that, when no longer bound to BLOCK by a BLOCK-REPORTER bond, has spectral properties different from those of the substrate; SPACER is a covalent linkage; and XR is a haloalkyl moiety that can covalently react with an intracellular thiol (Z-S-H) to form a thioether conjugate (Z-S-R-). After the substrate enters the cells, the analyte

removes BLOCK to make REPORTER detectable by the change in spectral properties, and the haloalkyl XR reacts with the intracellular thiol to form the thioether conjugate inside the cells, which is well-retained in the cells. Numerous fluorescein, coumarin, and rhodol or rhodamine derivs. were prepared, some of which could be unblocked by peptidases or by  $\beta$ -galactosidases. The  $\beta$ -galactosidase substrate was shown to be taken up and retained by lacZ+ cells. This substrate was not cytotoxic.

L6 ANSWER 33 OF 106 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1996:404513 CAPLUS

DOCUMENT NUMBER: 125:71991

TITLE: Thermal recording material

INVENTOR(S):
Takeuchi, Akira

PATENT ASSIGNEE(S): Fuji Photo Film Co Ltd, Japan SOURCE: Jpn. Kokai Tokkyo Koho, 15 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 08090918	A2	19960409	JP 1994-231609	19940927
JP 3404149	B2	20030506		
PRIORITY APPLN. INFO.:			JP 1994-231609	19940927

IT 178332-88-2

RL: DEV (Device component use); USES (Uses)

(dye precursor; thermal recording material for high-d. image)

RN 178332-88-2 CAPLUS

CN Spiro[isobenzofuran-1(3H),9'-[9H]xanthen]-3-one, 6'-(diethylamino)-3'-methoxy-1'-methyl- (9CI) (CA INDEX NAME)

AB The material contains 0.1-4 weight% (total solid content) alumina sol, silica sol, and/or colloidal silica in the thermal recording layer. The material may have a haze value ≤40%. The recording layer may be obtained from a coating solution containing microencapsulated leuco dye precursors and emulsified developers. The material gives high-d. images without cracking.

L6 ANSWER 39 OF 106 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1995:267306 CAPLUS

DOCUMENT NUMBER: 122:50761

TITLE: Fluorescent ion-selective diaryldiaza crown ether

conjugates

INVENTOR(S): Kuhn, Michael A.; Haugland, Richard P.

SOURCE:

PATENT ASSIGNEE(S):

Molecular Probes Inc., USA Brit. UK Pat. Appl., 36 pp.

CODEN: BAXXDU

DOCUMENT TYPE: LANGUAGE:

Patent English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
GB 2277096	A1	19941019	GB 1994-6231		19940329
GB 2277096	B2	19961211			
US 5405975	Α	19950411	US 1993-38918		19930329
PRIORITY APPLN. INFO.:			US 1993-38918	Α	19930329
TT 2006 44 0 Dhodol					

IT 3086-44-0, Rhodol

RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses) (fluorescent ion-selective diaryldiaza crown ether conjugates for biochem. anal.)

3086-44-0 CAPLUS RN

Spiro[isobenzofuran-1(3H),9'-[9H]xanthen]-3-one, 3'-amino-6'-hydroxy-CN (9CI) (CA INDEX NAME)

AB Sensors for ions are based on the combination of xanthylium-based dyes with metal-binding N,N'-diaryldiaza crown ethers. These sensors are primarily useful for detection and quantitation of alkali-metal ions in aqueous solution Binding of the ion results in a change in the fluorescence properties of the indicating dye that can be correlated with the ion concentration Methods are provided for attaching reactive groups on these sensors for conjugation to dyes, lipids and polymers and for enhancing entry of the indicators into living cells. The sensor compds. comprise crown ether derivs. comprising FLUOR substituents where FLUOR is a pyronine, xanthene, fluorescein, rhodamine, rhodol, benzofluorescein, dibenzofluorescein, semi-naphthofluorescein or naphthofluorescein.

ANSWER 40 OF 106 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER:

1995:249712 CAPLUS

DOCUMENT NUMBER:

122:305348

TITLE:

Extraction of ion associates formed by metal-crown ether complexes and xanthene or sulfophthalein dye

anions

AUTHOR (S):

SOURCE:

Mchedlov-Petrosyan, N. O.; Egorova, S. I.; Arias

Cordova, E.

CORPORATE SOURCE:

Khar'kov State University, Kharkov, 310057, Ukraine Zhurnal Analiticheskoi Khimii (1994), 49(11), 1177-83

CODEN: ZAKHA8; ISSN: 0044-4502

PUBLISHER:

MAIK Nauka Journal

DOCUMENT TYPE:

LANGUAGE: Russian

TT 136858-26-9

RL: ARG (Analytical reagent use); RCT (Reactant); ANST (Analytical study); RACT (Reactant or reagent); USES (Uses)

(extraction of ion assocns. formed by metal-crown ether complexes and xanthene or sulfophthalein dye anions)

136858-26-9 CAPLUS RN

Spiro[isobenzofuran-1(3H),9'-[9H]xanthen]-3-one, 3'-(diethylamino)-6'-CN hydroxy- (9CI) (CA INDEX NAME)

Equilibrium consts. for the extraction of ion assocns. formed by dyes with the AB Li+,

Na+, K+, and Pb2+ complexes of 18-crown-6, dibenzo-18-crown-6, 15-crown-5, and dibenzo-24-crown-8 were determined The comparison of these values with the Kex for ion pairs formed by dyes with tetraphenylarsonium shows that specific interactions with counter ions lead to a differentiation of the extraction capacity of the dye anions. Bromothymol blue, eosin, and erythrosin were the most effective counter ions for extracting the crown-ether complexes studied. With Rhodamine 200V, the extraction consts. are lower, but the insensitivity of the extractability of its ion assocns. to the aqueous-phase pH over a wide range of acidities, as well as the intense fluorescence of the exts., make this reagent valuable for determining cationic species by extraction-fluorometric methods. Molar absorptivities of the ion assocns. were also determined

ANSWER 41 OF 106 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER:

1995:212442 CAPLUS

DOCUMENT NUMBER:

122:163505

TITLE:

Leuco dyes

INVENTOR (S):

Yanagihara, Naoto

PATENT ASSIGNEE(S):

Fuji Photo Film Co Ltd, Japan

SOURCE:

Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN: JKXXAF

DOCUMENT TYPE:

Patent

LANGUAGE:

PR'

Japanese

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 06228445	A2	19940816	JP 1993-16331	19930203
JP 3548189	B2	20040728		
RIORITY APPLN. INFO.:			JP 1993-16331	19930203
TUED COURCE/C).	MADDAT	122.162505		

OTHER SOURCE(S):

MARPAT 122:163505

155251-42-6

RL: RCT (Reactant); RACT (Reactant or reagent) (reduction of)

RN 155251-42-6 CAPLUS

CN Spiro[isobenzofuran-1(3H),9'-[9H]xanthen]-3-one, 6'-(diethylamino)-2'-(diphenylamino)-3'-methoxy-(9CI) (CA INDEX NAME)

GI

$$R^{1}$$
 $R^{2}$ 
 $N$ 
 $R^{3}$ 
 $R^{4}$ 
 $R^{5}$ 
 $R^{6}$ 

AB The color formers are shown as I (R1, R2 = H, alkyl, aralkyl, aryl; R3 = H, alkyl, aralkyl, aryl, halo, alkoxy, aryloxy, alkylthio, arylthio; R4-R7 = H, alkyl, alkoxy, halo, CF3, substituted amino, substituted carbonyl, substituted sulfonyl; R8 = H, alkyl, substituted carbonyl; R1R2N may represent a hetero ring). Thus, powdered Zn was added to 2-(diphenylamino)-3-methoxy-6-(diethylamino)fluoran in HOAc, and stirred at 105° for 1 h to give 2-(diphenylamino)-3-methoxy-6-(diethylamino)-9-(2-carboxyphenyl)xanthene, which was mixed with K2CO3 in AcNMe2 and methylated with Me2SO4.

Ι

L6 ANSWER 47 OF 106 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1994:335066 CAPLUS

DOCUMENT NUMBER: 120:335066

TITLE: Thermally reversible color-forming agents contained in

heat-sensitive recording materials

INVENTOR(S): Goto, Hiroshi; Maruyama, Katsuji

PATENT ASSIGNEE(S): Ricoh Kk, Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 25 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. DATE

JP 05201132 A2 19930810 JP 1992-35634 19920127

PRIORITY APPLN. INFO.:

JP 1992-35634

19920127

OTHER SOURCE(S):

MARPAT 120:335066

155295-03-7, 2-Anilino-3-methoxy-6-(di-n-hexylamino)fluoran

155295-04-8, 2-Anilino-3-ethoxy-6-(N-cyclohexyl-N-n-

hexylamino) fluoran 155295-05-9, 2-Anilino-3-ethoxy-6-(di-n-

amylamino)fluoran 155295-12-8, 2-Amino-3-methoxy-6-(di-n-

amylamino) fluoran

RL: USES (Uses)

(thermally reversible color-forming agent, heat-sensitive recording material containing)

RN 155295-03-7 CAPLUS

CN Spiro[isobenzofuran-1(3H),9'-[9H]xanthen]-3-one, 6'-(dihexylamino)-3'methoxy-2'-(phenylamino)- (9CI) (CA INDEX NAME)

RN 155295-04-8 CAPLUS

Spiro[isobenzofuran-1(3H),9'-[9H]xanthen]-3-one, 6'-(cyclohexylhexylamino)-CN3'-ethoxy-2'-(phenylamino)- (9CI) (CA INDEX NAME)

RN 155295-05-9 CAPLUS

Spiro[isobenzofuran-1(3H),9'-[9H]xanthen]-3-one, 6'-(dipentylamino)-3'-CN ethoxy-2'-(phenylamino)- (9CI) (CA INDEX NAME)

RN 155295-12-8 CAPLUS

CN Spiro[isobenzofuran-1(3H),9'-[9H]xanthen]-3-one, 2'-amino-6'-(dipentylamino)-3'-methoxy- (9CI) (CA INDEX NAME)

MeO 
$$(CH_2)_4$$
 - Me  $(CH_2)_4$  - Me  $(CH_2)_4$  - Me  $(CH_2)_4$  - Me

GΙ

AB The thermally reversible color-forming agent is made of a fluoran compound I [R1 = C≥4 linear or branched alkyl, cyclic alkyl, allyl, alkoxyalkyl; R2 = H, C≥2 linear or branched alkyl, cyclic alkyl, allyl, alkoxyalkyl; X = H, C≤4 lower alkyl, C≤4 alkoxy or alkoxyalkyl; Y = C≤4 lower alkyl, amino, cyano] which is used together with a developer containing a long-chain aliphatic group. The thermally

reversible color-forming agent exhibits excellent color-forming and

color-erasing properties.

L6 ANSWER 48 OF 106 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1994:335022 CAPLUS

DOCUMENT NUMBER: 120:335022

TITLE: Thermal recording material

INVENTOR(S): Yanagihara, Naoto; Endo, Tosiaki; Wachi, Naotaka

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Ger. Offen., 10 pp.

CODEN: GWXXBX

DOCUMENT TYPE: Patent LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 4317378	A1	19931202	DE 1993-4317378	19930525
JP 05323492	A2	19931207	JP 1992-133925	19920526
JP 2753918	B2	19980520		
US 5389489	A	19950214	US 1993-63467	19930519
PRIORITY APPLN. INFO.:			JP 1992-133925 A	19920526
OTHER SOURCE(S):	MARPAT	120:335022		

IT 155251-42-6P

RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation and use of, as dye in thermal recording material)

RN 155251-42-6 CAPLUS

CN Spiro[isobenzofuran-1(3H),9'-[9H]xanthen]-3-one, 6'-(diethylamino)-2'-(diphenylamino)-3'-methoxy- (9CI) (CA INDEX NAME)

GI

$$R^{1}$$
  $N$   $R^{2}$   $N$   $R^{4}$   $R^{6}$   $R^{5}$ 

AB The title material comprises: (1) microcapsules containing a leuco dye and an photooxidizing agent; and (2) a reducing agent where the leuco dye is a

Ι

xanthene derivative I [R1, R2 = H, alkyl, aryl, aralkyl; R3 = R1, halogen,
alkoxy, aryloxy, alkylthio, arylthio; R4 = H, alkyl, alkoxy, halogen,
trifluoromethyl, substituted carbonyl, substituted sulfonyl; R6 = H,
alkyl, substituted carbonyl; R1-R2 and R4-R5 can form a ring which may
contain a heterocyclic ring]. The microcapsules may also contain an
antioxidn. material. The material provides high image d. and low fog.

L6 ANSWER 49 OF 106 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1994:257501 CAPLUS

DOCUMENT NUMBER: 120:257501

TITLE: Thermal coloring substance and coloring sheet using

sam

INVENTOR(S): Tsucha, Kikuo; Inoe, Masahiko; Inagaki, Seiji; Kitao,

Teijiro

PATENT ASSIGNEE(S): Dainippon Ink & Chemicals, Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 13 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	JP 05064965	A2	19930319	JP 1992-53572	19920312
,	JP 3331614	B2	20021007		

PRIORITY APPLN. INFO.: JP 1991-48152 A1 19910313

IT 138518-26-0P

RL: SPN (Synthetic preparation); PREP (Preparation) (preparation and use of, as thermal coloring substance)

RN 138518-26-0 CAPLUS

CN Spiro[isobenzofuran-1(3H),9'-[9H]xanthen]-3-one, 3'-(diethylamino)-6'-(2-propenyloxy)- (9CI) (CA INDEX NAME)

AB The title thermal coloring substance is a compound which forms color due to an acid group generated by chemical reaction caused by temperature changes.

The

title coloring sheet has a heat-sensitive coloring layer containing the above coloring substance. Stable images with high coloring d. are obtained.

L6 ANSWER 50 OF 106 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1994:220374 CAPLUS

DOCUMENT NUMBER: 120:220374

TITLE: Ionization and tautomerism of fluorescein, rhodamine

B, N,N-diethylrhodol and related dyes in mixed and

nonaqueous solvents

AUTHOR(S): Mchedlov-Petrossyan, Nikolay O.; Kukhtik, Valentina

I.; Alekseeva, Vera I.

CORPORATE SOURCE: Kharkov State Univ., Kharkov, 310077, Ukraine

SOURCE: Dyes and Pigments (1994), 24(1), 11-35

CODEN: DYPIDX; ISSN: 0143-7208

DOCUMENT TYPE: Journal LANGUAGE: English

IT 136858-26-9, N,N-Diethylrhodol

RL: PRP (Properties)

(ionization and tautomerism of, in mixed solvents)

RN 136858-26-9 CAPLUS

CN Spiro[isobenzofuran-1(3H),9'-[9H]xanthen]-3-one, 3'-(diethylamino)-6'-

hydroxy- (9CI) (CA INDEX NAME)

AB The protolytic equilibrium of fluorescein, rhodamine B and of the asym. amino-oxyanthene dye, N,N-diethylrhodol (a 'hybrid' of rhodamine B and fluorescein) were studied in aqueous DMSO and EtOH (91% organic cosolvent).

The

pKa values of these dyes, as well as of related substances, were determined On the basis of the visible absorption spectra in various solvents conclusions were made about tautomerism in the dye mols. Values of the tautomeric equilibrium consts. and of the microscopic ionization consts. were obtained. Some new data on the tautomerism of oxyanthene monoanions in MeOH were presented.

L6 ANSWER 54 OF 106 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1993:97347 CAPLUS

DOCUMENT NUMBER: 118:97347

TITLE: Fluorescent rhodol derivatives: versatile,

photostable labels and tracers

AUTHOR(S): Whitaker, James E.; Haugland, Rosaria P.; Ryan, Diane;

Hewitt, Peter C.; Haugland, Richard P.; Prendergast,

Franklyn G.

CORPORATE SOURCE: Mol. Probes, Inc., Eugene, OR, 97402, USA

SOURCE: Analytical Biochemistry (1992), 207(2), 267-79

CODEN: ANBCA2; ISSN: 0003-2697

DOCUMENT TYPE: Journal

LANGUAGE: English
IT 3086-44-0D, Rhodol, derivs.
RL: ANST (Analytical study)

(as fluorescent label and tracer for biochem. studies)

RN 3086-44-0 CAPLUS

CN Spiro[isobenzofuran-1(3H),9'-[9H]xanthen]-3-one, 3'-amino-6'-hydroxy-

(9CI) (CA INDEX NAME)

IT 145695-38-1P 145695-39-2P

RL: PREP (Preparation)

(preparation of, for biochem. studies)

RN 145695-38-1 CAPLUS

CN Acetamide, N-[5-[[(2,5-dioxo-1-pyrrolidinyl)oxy]carbonyl]-6'-hydroxy-3-oxospiro[isobenzofuran-1(3H),9'-[9H]xanthen]-3'-yl]-2,2,2-trifluoro-(9CI) (CA INDEX NAME)

RN 145695-39-2 CAPLUS

CN Acetamide, N-[6-[[(2,5-dioxo-1-pyrrolidinyl)oxy]carbonyl]-6'-hydroxy-3-oxospiro[isobenzofuran-1(3H),9'-[9H]xanthen]-3'-yl]-2,2,2-trifluoro- (9CI) (CA INDEX NAME)

AB A series of chemical reactive, fluorescent rhodol derivs. was prepared and evaluated. Reactive functional groups included activated esters, amines, haloacetamides, fixable hydrazide derivs., acrylamides, and photoaffinity reagents. Depending on the choice of substituents, absorption maximum of the

dyes varied from 490 to 550 nm with extinction coeffs, that were generally greater than 50,000 M-1 cm-1 in aqueous solution and emission maximum from 520

to

580 nm. Most of the compds. investigated exhibited fluorescence lifetimes between 3 and 4 ns. Individual derivs. were suitable for excitation with the 488 and 514-nm lines of the argon ion laser and the 546-nm line of the mercury arc lamp and were compatible for use with standard fluorescein and rhodamine filter sets. The rhodol dyes were more photostable and less sensitive to pH changes in the physiol. range than fluorescein derivs. Some examples show absorption maximum at or near 514 nm, an excitation wavelength that is useful for multicolor fluorescence microscopy, flow cytometry, and DNA sequencing. Derivs. were also prepared that exhibit absorption and emission maximum similar to those of tetramethylrhodamine (TMR) analogs but with higher quantum yields in aqueous solution A number of

the

dyes had higher solubilities in aqueous systems and were less quenched on conjugation to proteins than TMR derivs. Appropriate substitution results in a wider range of solubilities in hydrophilic or lipophilic solvents than is easily accomplished with fluorescein or TMR derivs. Conjugates of a number of the rhodol fluorophores were generally more photostable and less pH sensitive than fluorescein conjugates and more fluorescent than TMR conjugates.

ANSWER 55 OF 106 CAPLUS COPYRIGHT 2005 ACS on STN 1.6

ACCESSION NUMBER: 1993:14048 CAPLUS

DOCUMENT NUMBER: 118:14048

TITLE: Fluoran compound and thermal recording material INVENTOR(S): Omura, Haruo; Tsuchida, Tetsuo; Kondo, Mitsuru

PATENT ASSIGNEE(S): Kanzaki Paper Mfg. Co., Ltd., Japan

SOURCE:

Jpn. Kokai Tokkyo Koho, 11 pp. CODEN: JKXXAF

DOCUMENT TYPE:

Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 04213368	A2	19920804	JP 1991-10851	19910131
JP 2874356	B2	19990324		
PRIORITY APPLN. INFO.:			JP 1990-172243	A1 19900628
OTHER SOURCE(S):	MARPAT	118:14048		

144878-19-3P

RL: PREP (Preparation)

(preparation of, color-former, thermal recording material using)

144878-19-3 CAPLUS RN

CN Carbonic acid, 6'-(dimethylamino)-3-oxospiro(isobenzofuran-1(3H),9'-[9H] xanthen] -3'-yl 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

IT 128603-56-5

RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction of, with Bu ester)

RN 128603-56-5 CAPLUS

CN Spiro[isobenzofuran-1(3H),9'-[9H]xanthen]-3-one, 3'-(dimethylamino)-6'-hydroxy-(9CI) (CA INDEX NAME)

GI

AB The fluoran compound I [R = C4-12 tert-alkyl, R1-11 = H, halo, C1-12 alkyl,

Ι

C1-12 alkoxy, OH, NO2, NR12R13, O(CO)OR14, OCOR15, R12-13 = H, C1-12 alkyl, C4-12 cycloalkyl, (halo or C1-6 alkyl or C1-6 alkoxy-substituted) aralkyl or aryl; R12 and R13 may form pyrrolidino, piperidino or hexamethyleneimino group; R14 = C1-12 alkyl, benzyl, (halo or C1-6 alkyl or C1-6 alkoxy-substituted) aryl; R15 = C1-12 alkyl, benzyl, (halo or C1-6 alkyl or C1-6 alkoxy-substituted) aryl, NR16R17; R16-17 = H, C1-12 alkyl, C4-12 cycloalkyl, (halo or C1-6 alkyl or C1-6 alkoxy-substituted) aralkyl or aryl, R16 and R17 may form a pyrrolidino or piperidino or hexamethyleneimino group] is claimed. In the thermal recording material comprising a support and a heat-sensitive layer containing a dye-precursor and an acid compound color-developer, the dye-precursor contains ≥1 of I. The material shows high whiteness, storage stability, and gives high-d. images.

L6 ANSWER 56 OF 106 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1992:196201 CAPLUS

DOCUMENT NUMBER: 116:196201

TITLE: Thermally generated dyes: coloration via successive

Claisen rearrangement and intramolecular acid-base

reaction

AUTHOR(S): Inouye, Masahiko; Tsuchiya, Kikuo; Kitao, Teijiro

CORPORATE SOURCE: Dep. Appl. Chem., Univ. Osaka Prefect., Sakai, 591,

Japan

SOURCE: Angewandte Chemie (1992), 104(2), 198-200 (See also

Angew. Chem., Int. Ed. Engl., 1992, 31(2), 204-5)

CODEN: ANCEAD; ISSN: 0044-8249

DOCUMENT TYPE: Journal

LANGUAGE: German

IT 138518-26-0P

RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation and intramol. acid-base reaction of, thermal coloration in

relation to)

RN 138518-26-0 CAPLUS

CN Spiro[isobenzofuran-1(3H),9'-[9H]xanthen]-3-one, 3'-(diethylamino)-6'-(2-

propenyloxy) - (9CI) (CA INDEX NAME)

AB Colorless fluoran spirolactones containing allyloxy and Et2N groups when heated at 180° underwent a Claisen rearrangement to give allyl phenols. The acid OH groups of the phenols participated in an intramol. acid-based reaction with lactone ring opening to give a colored compound in solution or in a PMMA matrix.

L6 ANSWER 63 OF 106 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1989:493171 CAPLUS

DOCUMENT NUMBER: 111:93171

TITLE: Vita blue: a new 633-nm excitable fluorescent dye for

cell analysis

AUTHOR(S): Lee, Linda G.; Berry, Gillian M.; Chen, Chia Huei

CORPORATE SOURCE: Becton Dickinson Monoclonal Cent., Mountain View, CA,

94043, USA

SOURCE: Cytometry (1989), 10(2), 151-64

CODEN: CYTODQ; ISSN: 0196-4763

DOCUMENT TYPE: LANGUAGE:

Journal English

IT 3086-44-0P, Rhodol

RL: PREP (Preparation)

(preparation and spectral properties and acidity of)

RN 3086-44-0 CAPLUS

CN Spiro[isobenzofuran-1(3H),9'-[9H]xanthen]-3-one, 3'-amino-6'-hydroxy-

(9CI) (CA INDEX NAME)

GI

ΙI

characterized by NMR; and the absorbance, excitation, and emission spectra were measured. The fluorescence quantum yields of the dyes were determined The pKa3 values of the dyes were measured by fluorescence titration. The characteristics of the fluorescein and sulfonefluorescein derivs. Were compared. The most promising dye for use in cell anal. appeared to be Vita Blue I. Vita Blue dibutyrate (VBDB) (II) was prepared and the Km of VBDB with pig liver esterase was measured and found to be 4 + 10-5M. The pKa3 of Vita Blue was 7.56; both acidic and basic forms were fluorescent (dual fluorescence). The use of VBDB as an intramol. esterase substrate and its utlity for the discrimination between live and dead cells by flow cytometry is described.

L6 ANSWER 64 OF 106 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1989:163596 CAPLUS

DOCUMENT NUMBER: 110:163596

TITLE: Photopolymerization photographic material

INVENTOR(S): Watanabe, Toshiyuki; Harada, Toru PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan SOURCE: Jpn. Kokai Tokkyo Koho, 28 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
TD (2120220	7.0	10000001	TD 1006 077001	10061110	
JP 63129338 JP 06019565	A2 B4	19880601 19940316	JP 1986-277091	19861119	
PRIORITY APPLN. INFO.:	~ -	19940316	JP 1986-277091	19861119	
			01 2000 20002		

OTHER SOURCE(S): MARPAT 110:163596

IT 73852-10-5 91204-13-6 91204-14-7

RL: USES (Uses)

(photopolymn. photog. composition containing, for colored image formation) RN 73852-10-5 CAPLUS

CN Spiro[isobenzofuran-1(3H),9'-[9H]xanthen]-3-one, 6'-(diethylamino)-3'-methoxy-2'-(phenylamino)- (9CI) (CA INDEX NAME)

RN 91204-13-6 CAPLUS

CN Spiro[isobenzofuran-1(3H),9'-[9H]xanthen]-3-one, 6'-(diethylamino)-3'-methoxy-2'-[(4-methylphenyl)amino]- (9CI) (CA INDEX NAME)

RN 91204-14-7 CAPLUS

CN Spiro[isobenzofuran-1(3H),9'-[9H]xanthen]-3-one, 6'-(dibutylamino)-3'-methoxy-2'-[(4-methylphenyl)amino]- (9CI) (CA INDEX NAME)

GΙ

AB A photopolymn. photog. material comprising a support, Ag halide, a reducing agent, and a polymerizable compound contains a leuco dye I [R1-4 = H, alkyl, cycloalkyl, arylkyl, aryl; R1 and R2 or R3 and R4 may form 5- or 6-membered rings with adjoining N; R5 = H, halo, alkyl, alkoxy, alkylthio; R6 = H, halo, NO2, NHCOR7 (R7 = alkyl, aryl)]. A full color image is obtained with good black color d. and good overall contrast on exposure through a full color pos. and thermal transfer.

6 ANSWER 65 OF 106 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1

1989:24247 CAPLUS

DOCUMENT NUMBER:

110:24247

Ι

TITLE:

Preparation of 2-substituted-3-protected

1,3,2-oxazaphosphacycloalkanes, their phosphoramidite precursors, and their use for introducing spacer groups of labeled oligonucleotides by solid phase

method

INVENTOR(S): Fung, Steven; Woo, Sam L.; Smith, Lloyd M.

PATENT ASSIGNEE(S): Applied Biosystems, Inc., USA

SOURCE: U.S., 7 pp.
CODEN: USXXAM

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PAT	ENT NO.			KIND	DATE		API	PLICATION 1	NO.	DATE
US	4757141			Α	19880	0712	US	1985-7691	70	19850826
WO	8802004			A1	19880	0324	WO	1986-US19	70	19860920
	W: AU,	JP								
	RW: AT,	BE,	CH,	DE,	FR, GB,	ΙT,	LU, NI	J, SE		
US	5212304			Α	19930	0518	US	1988-2167	68	19880708
US	5258538			Α	1993	1102	US	1991-7345	75	19911029
JР	06128285			A2	19940	0510	JP	1993-6599	2	19930303
JP	2509863			B2	19960	0626				
JP	06206889			A2	19940	0726	JP	1993-6599	3	19930303
JP	07121954			B4	1995	1225				
PRIORITY	APPLN.	INFO	. :				US	1985-7691	70	19850826
							JP	1986-5050	94	19860920
							US	1988-2167	68 A3	19880708

OTHER SOURCE(S):

MARPAT 110:24247

IT 118106-60-8

RL: RCT (Reactant); RACT (Reactant or reagent)

(acylation by, of TCCCAGTCACGACGTT aminoethyl phosphate)

RN 118106-60-8 CAPLUS

CN Spiro[isobenzofuran-1(3H),9'-[9H]xanthen]-3-one, 3'-hydroxy-6'isothiocyanato- (9CI) (CA INDEX NAME)

GI For diagram(s), see printed CA Issue.

AB The title reagents, 2-substituted-3-protected-1,3,2oxazaphosphacycloalkanes, [I and II; R1 = amino protecting group; R2, R3 =
H, (un)substituted lower alkyl, lower acyl, cyano, halo, nitro; R4 =
C≤10 alkyl, alkenyl, aryl, aralkyl, or cycloalkyl; n = 2-4; m =
1-3] and their conjugates with polymer supports or nucleotides linked to
polymer supports (III; i = 0, 1; k = 1 when i = 1 or k = 0 when i = 1; m =
1-3; n = 2-4; W = a hydroxylic polymer support or oligonucleotide linked
to a polymer support) and R1NH(CR2R3)OP(O)i(OR4k)OW, useful for linking
organic moieties, such as fluorescent or chromogenic dyes, to polymer
supports and oligonucleotides, particularly single- and double-stranded
DNA and RNA fragments, are described. Thus, condensation of
(Me2CH)2NPClOMe with CF3CONHCH2CH2OH in Cl2CH2 in the presence of
(Me2CH)2NEt at 0° gave (Me2CH)2NP(OMe)OCH2CH2NHCOCF3 which was

distilled at  $58-59^{\circ}$  and 0.8 Torr to give I (R1 = COCF3, R2 = R3 = H, R4 = Me, n = 2). In 3 examples, 5'-aminoethylphosphate TCCCAGTCACGACGTT was prepared by the solid phase method and reacted with fluorescein 6-isothiocyanate in H2O in 1M NaHCO3/Na2CO3 buffer to give a fluorescein-labeled oligonucleotide.

L6 ANSWER 75 OF 106 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1986:216611 CAPLUS

DOCUMENT NUMBER: 104:216611

TITLE: Thermal recording paper

INVENTOR(S): Kaneko, Kazuo; Suzuka, Susumu; Gonda, Michihiro

PATENT ASSIGNEE(S): Hodogaya Chemical Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 60239281	A2	19851128	JP 1984-95706	19840515
PRIORITY APPLN. INFO.:			JP 1984-95706	19840515

IT 102106-03-6

RL: TEM (Technical or engineered material use); USES (Uses) (thermal recording material containing)

RN 102106-03-6 CAPLUS

CN Spiro[isobenzofuran-1(3H),9'-[9H]xanthen]-3-one, 6'-[bis(1-cyclohexylethyl)amino]-3'-methoxy-2'-(phenylamino)- (9CI) (CA INDEX NAME)

GI

AB A recording paper contains a fluoran compound as color former (R = C1-8 alkyl; cyclohexylalkyl, cycloalkyl, (substituted) Ph, alkoxyalkyl, benzyl, H; R1 = H, halo, C1-4 alkyl, (substituted) Ph, benzyl, lower alkoxy, lower alkoxyalkyl; R2 = H, Cl, F, C1-4 alkyl; Z = branched C1-6 alkylene). The use of the color former provides desirable properties, especially high sensitivity and low fog d. to the recording paper. Thus, 3 dispersions comprised of (1) 3'-N-methyl-N-cyclohexylpropyl(1)-6'-methyl-7'-phenylaminofluoran (II) 4, 10% aqueous poly(vinyl alc.) (III) 30, and 5% Nopco 1407 2 parts, (2) bisphenol A 6, 10% aqueous III 20, and H20 14 parts, and (3) Al(OH)3 10, 10% aqueous III 20, and H20 10 parts. These 3 dispersions and H20 were mixed in 3:9:5:3 ratio and coated on paper to form a 5-g/m2 layer. The material in comparison with the control (using 3'-N-methyl-N-methylamino-6'-methyl-2'-phenylaminofluoran instead of II) showed fog d. 0.11 (vs. 0.39) and heat sensitivity (temperature to attain d. 1.0 under specified conditions) was 113° (vs. 115°).

L6 ANSWER 76 OF 106 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER:

1986:216598 CAPLUS

Ι

ΙI

DOCUMENT NUMBER:

104:216598

TITLE:

6-Tetrahydrofurfurylaminofluoran compound useful as a

color former

INVENTOR (S):

Sensui, Hideyuki; Suzuka, Susumu; Gonda, Michihiro;

Kikkawa, Katsumasa

PATENT ASSIGNEE(S):

Hodogaya Chemical Co., Ltd., Japan

SOURCE: Eur. Pat. Appl., 26 pp.

CODEN: EPXXDW

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 155796	A2	19850925	EP 1985-301502	19850305

EP	155796			A3		19860402				
EP	155796			В1		19880914				
	R: B	E, DE,	FR,	GB,	ΙT					
JP	6018487	78		A2		19850920	JP	1984-40526		19840305
JP	0205979	92		B4		19901213				
JP	6020836	50		A2		19851019	JP	1984-65097		19840403
JP	0307722	29		B4		19911209				
US	4597795	5		A		19860701	US	1985-693116		19850122
PRIORITY	APPLN	. INFO	. :				JP	1984-40526	Α	19840305
							JP	1984-65097	Α	19840403

OTHER SOURCE(S): CASREACT 104:216598

IT 102232-25-7

RL: USES (Uses)

(color-forming agent, for thermal recording materials)

RN 102232-25-7 CAPLUS

CN Spiro[isobenzofuran-1(3H),9'-[9H]xanthen]-3-one, 3'-methoxy-6'[methyl[(tetrahydro-2-furanyl)methyl]amino]-2'-(phenylamino)- (9CI) (CA
INDEX NAME)

GI

AB A heat-sensitive, pressure-sensitive or electrothermal recording material contains a 6-tetrahydrofurfurylaminofluoran compound having the formula I (R = H, Cl-8 alkyl, tetrahydrofurfuryl, Ph, Cl-5 alkylphenyl or C3-8 cycloalkyl; R1 = H, Cl, F, Cl-5 alkyl, Cl-5 alkoxy, C2-10 alkoxyalkyl, Ph or benzyl; R2 = H, Cl, F, Cl-5 alkyl or C2-7 aryl) as a color-forming agent to provide clear color images having satisfactory resistances to humidity and oils. Thus, a liquid solution (A) comprised of 2-anilino-3-methyl-6-N-methyl-N-tetrahydrofurfurylaminofluoran 4, 10% aqueous poly(vinyl alc.) 34, and a 5% aqueous solution of a defoaming agent (Sun Nopco

Ι

1407) 2 parts, a liquid solution (B) comprised of bisphenol A 6, 10% aqueous poly(vinyl alc.) 20, and H2O 14 parts, and a liquid solution (C) comprised of Al(OH)3 10, 10% aqueous poly(vinyl alc.) 20, and H2O 10 parts were prepared Then, A 38 B 9, C 5 parts, and H2O 3 parts were mixed, coated on a paper support at 5 g/m2 (dry basis), and dried to give a heat-sensitive recording material which produced a black image having a sensitivity of 107° (a temperature at which an image d. of 1.0 was developed) and good resistances to oils and humidity.

L6 ANSWER 83 OF 106 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1985:8249 CAPLUS

DOCUMENT NUMBER: 102:8249

TITLE: Fluoran color formers

PATENT ASSIGNEE(S): Kanzaki Paper Mfg. Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 11 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 59157153	A2	19840906	JP 1983-33120	19830228
PRIORITY APPLN. INFO.:			JP 1983-33120	19830228

IT 93679-63-1

RL: USES (Uses)

(color former, for recording materials)

RN 93679-63-1 CAPLUS

CN Spiro[isobenzofuran-1(3H),9'-[9H]xanthen]-3-one, 6'-[cyclohexyl(2-methyl-2-propenyl)amino]-3'-methoxy-2'-(phenylamino)- (9CI) (CA INDEX NAME)

GΙ

$$\begin{array}{c|c}
R^1 \\
R^2
\end{array}$$

$$\begin{array}{c}
R^5 \\
R^6 \\
R^3
\end{array}$$

$$\begin{array}{c}
R^3 \\
R^4
\end{array}$$

The title compds., useful in recording media, were prepared having the general formula I [R1 = lower alkenyl, alkynyl; R2 = cyclopentyl, cyclohexyl, cyclohexylmethyl, methylcyclohexyl, cycloheptyl; R3 = H, halogen, alkoxy, C1-18 alkyl, cyanoalkyl, (un)substituted aralkyl; R4 = R3, (un)substituted amino, aryl with or without acyl substituent, cycloalkyl; R3R4 = N-heterocycle ring member; R5 = H, halogen, lower alkyl; R6 = R5, lower alkoxyl. Thus, 2-[4-(N-allyl-N-cyclohexylamino)-2-hydroxybenzoyl]benzoic acid [93679-66-4] was condensed with 4-methoxy-2-methyldiphenylamine [41317-15-1] in concentrated H2SO4 to give 3-(N-allyl-N-cyclohexylamino)-7-anilino-6-methylfluoran [93679-48-2], black on silica gel.

L6 ANSWER 84 OF 106 CAPLUS COPYRIGHT 2005 ACS on STN

Ι

ACCESSION NUMBER: 1984:581297 CAPLUS

DOCUMENT NUMBER: 101:181297

TITLE: Heat-sensitive recording material

INVENTOR(S): Kaneko, Kazuo; Obara, Toshio; Gonda, Michihiro;

Kickawa, Katsumasa; Kanasugi, Mikiko Hodogaya Chemical Co., Ltd., Japan

PATENT ASSIGNEE(S): Hodogaya Chemical Co., Ltd.

SOURCE: Eur. Pat. Appl., 26 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 104353	A2	19840404	EP 1983-107344	19830726
EP 104353	A3	19850417		
EP 104353	B1	19871028		
R: BE, DE, FR,	GB, IT			
JP 59039594	A2	19840303	JP 1982-150052	19820831
JP 02025354	B4	19900601		
JP 59179395	A2	19841011	JP 1983-54047	19830331
JP 03026675	B4	19910411		
PRIORITY APPLN. INFO.:			JP 1982-150052 A	19820831
			JP 1983-54047 A	19830331

#### IT 85223-20-7

RL: USES (Uses)

(heat-sensitive recording material containing, benzenesulfonamide compds. for, for increased color-forming sensitivity)

RN 85223-20-7 CAPLUS

CN Spiro[isobenzofuran-1(3H),9'-[9H]xanthen]-3-one, 6'-(dibutylamino)-3'-

methoxy-2'-(phenylamino)- (9CI) (CA INDEX NAME)

GI

AB A heat-sensitive recording material with improved heat and water resistance and increased color-forming sensitivity contains a fluoran compound, an acidic developer, a binder and a benzenesulfonamide I (R = H, C1-5 alkyl, acetylamino, halo; R1 = H, C1-5 alkyl, Ph, cyclohexyl; R2 = C1-5 alkyl, cyclohexyl, Ph, and R1 + R2 may form together with N a saturated ring). The material is useful for high-speed facsimile recording. Thus, 3 parts of a ball milled dispersion containing 2-(2-chlorophenylamino)-6-diethylaminofluoran 4, 10% aqueous poly(vinyl alc.) 40 parts, was mixed with 10 parts of a ball milled dispersion containing Bisphenol A 7, 10% aqueous poly(vinyl alc.) 40, H2O 10 parts and 3 parts of a ball milled dispersion containing II 78, 10% aqueous poly(vinyl alc.) 40, H2O 10 parts to give a coating

composition which was coated on a paper support at 5 g/m2 dry weight The material

was subjected to heat development at  $150^{\circ}$  for 3 s under a load of 100 g/cm2 to give a color d. 1.17 and after irradiation of the image for 6 h by a C arc fading tester the image d. was 0.93.

L6 ANSWER 89 OF 106 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1983:199843 CAPLUS

DOCUMENT NUMBER: 98:199843

TITLE: Fluoran color formers

PATENT ASSIGNEE(S): Sumitomo Chemical Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 57198755	A2	19821206	JP 1981-83314	19810529

PRIORITY APPLN. INFO.:

JP 1981-83314

19810529

IT 85775-64-0

RL: USES (Uses)

(color formers, for heat-sensitive copying papers, manufacture of)

RN 85775-64-0 CAPLUS

Spiro[isobenzofuran-1(3H),9'-[9H]xanthen]-3-one, 5'-chloro-6'-CN (diethylamino) -3'-methoxy-2'-(phenylmethyl) - (9CI) (CA INDEX NAME)

$$\begin{array}{c} \text{C1} \\ \text{CH}_2\text{--Ph} \\ \\ \text{O} \\ \end{array}$$

4'-Chloro-3',7'-diaminofluoran derivs. useful as color formers for AB heat-sensitive copying papers were prepared For example, 2-[4-(diethylamino)-2-hydroxybenzoyl]benzoic acid [5809-23-4] was chlorinated with SO2Cl2 in the presence of Iodine to give 2-[3-chloro-4-(diethylamino)-2-hydroxybenzoyl]benzoic acid [85785-87-1] which was then condensed with N-cyclohexyl-4-hydroxy-2-methylaniline [85775-67-3] to give 4'-chloro-7'-(cyclohexylamino)-3'-(diethylamino)-6'methylfluoran [85775-62-8] developing a dark bluish green color on heat-sensitive copying paper.

ANSWER 90 OF 106 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER:

1982:226660 CAPLUS

DOCUMENT NUMBER:

96:226660

TITLE:

Ink jet recording sheet

INVENTOR (S):

Murakami, Mutsuaki; Hiromori, Yasutaka; Naito,

Hiroshi; Sekiguchi, Yumiko

PATENT ASSIGNEE(S):

Matsushita Electric Industrial Co., Ltd., Japan

SOURCE:

Eur. Pat. Appl., 68 pp. CODEN: EPXXDW

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PAT	TENT NO.		KIND	DATE	APPLICATION NO.	DATE
	46416			10000001	TD 1001 202006	
EP	46416		A2	19820224	EP 1981-303806	19810820
EP	46416		A3	19821208		
ΕP	46416		B1	19861112		
	R: DE, F	R, GB				
JP	57038185		A2	19820302	JP 1980-115236	19800820
JP	02034792		B4	19900806		
JΡ	57087987		A2	19820601	JP 1980-164974	19801121
JP	62018355		B4	19870422		
JP	57087988		A2	19820601	JP 1980-164975	19801121
JP	57087989		A2	19820601	JP 1980-164976	19801121
JΡ	03021356		B4	19910322		

JP 57102391	A2	19820625	JP	1980-179766		19801218
JP 02034793 JP 57120487	B4 A2	19900806 19820727	,TP	1981-7723		19810120
JP 02027157	B4	19900614	0.	170123		17010180
US 4425405	A	19840110	US	1981-294152		19810819
CA 1186574	A1	19850507	CA	1981-384191		19810819
PRIORITY APPLN. INFO.:			JP	1980-115236	Α	19800820
			JP	1980-164974	Α	19801121
			JP	1980-164975	Α	19801121
			JР	1980-164976	Α	19801121
			JP	1980-179766	Α	19801218
			JP	1981-7723	Α	19810120

IT 6359-29-1

RL: USES (Uses)

(ink composition containing ethylene glycol and, for ink-jet recording)

RN 6359-29-1 CAPLUS

CN Spiro[isobenzofuran-1(3H),9'-[9H]xanthene]-2'-carboxylic acid, 6'-(diethylamino)-3'-hydroxy-3-oxo- (9CI) (CA INDEX NAME)

An ink-jet recording sheet which has excellent ink receptivity and is able to suppress ink dots from spreading consists of a paper support and a composition containing an aqueous dispersion of poly(vinylpyrrolidone), vinylpyrrolidone-vinyl acetate copolymer or their mixture, and a white filler. The composition can be incorporated into the support or coated on its surface. Thus, a groundwood paper was coated with a slurry containing a 10% aqueous soln of poly(vinylpyrrolidone) and 20 weight% of clay, and then roll pressed to give a recording paper which was subjected to a recording procedure using an on-demand-type head with a nozzle diameter of 40 μ. The recorded copy has a following characteristics: optical d = 1.11, drying time (a time before the sepia color of the 7th stage was dried) = 15 s, rate area (a rate of area of recorded matter of the 1st stage in which 2 lines/mm were recorded) = 13.7%.

L6 ANSWER 91 OF 106 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1981:578624 CAPLUS

DOCUMENT NUMBER: 95:178624

TITLE: Thermal recording paper PATENT ASSIGNEE(S): Ricoh Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 3 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. DATE

JP 56040585 A2 19810416 JP 1979-114737 19790908 PRIORITY APPLN. INFO.: JP 1979-114737 A 19790908

IT 26567-26-0

RL: USES (Uses)

(heat-sensitive compns. containing, for thermal recording paper, preparation of)

RN 26567-26-0 CAPLUS

CN Spiro[isobenzofuran-1(3H),9'-[9H]xanthen]-3-one, 3'-(dimethylamino)-6'-methoxy-(9CI) (CA INDEX NAME)

AB In preparing heat-sensitive compns. for thermal recording papers, the pH of color-former dispersion is adjusted to 8-11, and the dispersion is then mixed with the color-developer dispersion. This method prevents coloration during the mixing and coating steps; hence a thermal recording paper with a very low background optical d. can be produced.

L6 ANSWER 92 OF 106 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER:

1980:541030 CAPLUS

DOCUMENT NUMBER:

93:141030

TITLE:

Phototropic photosensitive compositions containing

fluoran colorformer

INVENTOR(S):

Reardon, Edward Joseph, Jr.

PATENT ASSIGNEE(S):

Dynachem Corp., USA

SOURCE:

Eur. Pat. Appl., 78 pp.

CODEN: EPXXDW

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
TD 5300		10701114	TD 1070 200706	10700500
EP 5380	A2	19791114	EP 1979-300796	19790509
EP 5380	B1	19820106		
EP 5380	A3	19791128		
R: BE, CH, DE,	FR, GB	, NL, SE		
CA 1164710	A1	19840403	CA 1979-326323	19790425
AU 7946768	A1	19791115	AU 1979-46768	19790504
AU 523542	B2	19820805		
JP 55013780	A2	19800130	JP 1979-56880	19790509
JP 63052369	B4	19881018		
US 4343885	Α	19820810	US 1980-195285	19801008
PRIORITY APPLN. INFO.:			US 1978-904145	19780509
			US 1979-97096	A1 19791123
T				

IT 73852-10-5

RL: USES (Uses)

(photoimaging composition containing, phototropic)

RN 73852-10-5 CAPLUS

CN Spiro[isobenzofuran-1(3H),9'-[9H]xanthen]-3-one, 6'-(diethylamino)-3'-methoxy-2'-(phenylamino)- (9CI) (CA INDEX NAME)

GI

AB Phototropic compns. containing a polymerizable, curable, or crosslinkable component, a photoinitiator, a fluoran color-former with the formula I (R,R1 = H, alkyl, alkenyl, alkoxyalkyl, alkoxycarboxylalkyl acyl, aryl, or together form a heterocycle; R2 = H, alkyl, alkoxy, halogen, amino, aryl, aryloxy; R3 = H, alkyl, alkoxy, amino, or the same as R,R1 above; R4, R5 are the same as R,R1 above), and latent activator that releases or promotes the release of a Lewis acid are described. These compns. are especially useful in the production of dry film photoresists for use in the electronics industry to manufacture printed circuits. Thus, a typical composition

contained Acryloid A-101 60.3, trimethylolpropane triacrylate 19.6, tetraethylene glycol diacrylate 9.8, benzophenone 3.4, 2,2'-methylene bis(4-ethyl-6-tert-butyl)phenol 0.18, Modaflow 0.15, tricresyl phosphate 4.31, 4,4'-bis(dimethylamino)benzophenone 0.45, CBr3CONH2 1.51, I (R = Me; R1 = CH2CO2Et; R2, R3 = H; R4,R5 = Et) 0.3, and MeCOEt 195 parts by weight

L6 ANSWER 99 OF 106 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1974:544295 CAPLUS

DOCUMENT NUMBER: 81:144295

TITLE: Radiation-sensitive recording sheet

Ι

INVENTOR(S): Yoshino, Kimiaki; Adachi, Kinichi; Shimotsuma, Wataru;

Sekine, Yoichi; Shimizu, Toshio

PATENT ASSIGNEE(S): Matsushita Electric Industrial Co., Ltd.

SOURCE: Ger. Offen., 27 pp.

CODEN: GWXXBX

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

DE 2359271 A1 19740627 DE 1973-2359271 1973	31128
DE 2359271 B2 19760318	
DE 2359271 C3 19761028	
JP 49078550 A2 19740729 JP 1972-120898 197	21130
JP 51016155 B4 19760521	
JP 49133032 A2 19741220 JP 1973-32302 197	30320
JP 54013990 B4 19790604	
CA 990953 A1 19760615 CA 1973-186646 1973	31126
GB 1445757 A 19760811 GB 1973-54946 1973	31127
AU 7362998 A1 19750529 AU 1973-62998 197	31128
NL 7316317 A 19740604 NL 1973-16317 197	31129
NL 165413 B 19801117	
NL 165413 C 19810415	
FR 2209330 A5 19740628 FR 1973-42544 197	31129
US 3905876 A 19750916 US 1973-420601 197	31130
SU 562220 D 19770615 SU 1974-1992476 197	10117
PRIORITY APPLN. INFO.: JP 1972-120898 A 1973	21130
JP 1973-32302 A 197	30320

#### IT 26567-26-0

RL: USES (Uses)

(electrosensitive color-forming compns. containing copper iodide and, for recording)

RN 26567-26-0 CAPLUS

CN Spiro[isobenzofuran-1(3H),9'-[9H]xanthen]-3-one, 3'-(dimethylamino)-6'-methoxy-(9CI) (CA INDEX NAME)

For producing records by a stylus electrode on a sheet rendered conductive by CuI, a color reaction occurs in a heat-sensitive layer of a leuco dye with a phenol or organic acid or of a metal salt with a color reagent. The recording voltage can be reduced if the surface resistance of the Cu is lowered by additives, such as 0.05-0.2% I or an oxidant. Thus, CuI 100 and CHI3 1 part were ball-milled 48 hr in 1%aqueous poly(vinyl alc.) 100 parts. Sep. 30 parts each of Fe stearate and gallic acid were ball-milled for 24 hr in 10% aqueous polyvinyl alc.) 100 parts. The CuI dispersion 100 parts was mixed with a 1:1 mixture of the 2 dispersions 30 parts and coated on paper as 15  $\mu$  layer, dried, and yielded sharp dark gray records on a light yellow background with a reflection d. of 0.8 at 300 V.

L6 ANSWER 105 OF 106 CAPLUS COPYRIGHT 2005 ACS on STN ACCESSION NUMBER: 1963:3591 CAPLUS

RN

DOCUMENT NUMBER: 58:3591
ORIGINAL REFERENCE NO.: 58:602b-d

TITLE: Reversible bleaching of solid layers of xanthene dyes

in hydrazine vapor

AUTHOR(S): Vartanyan, A. T.

SOURCE: Zhurnal Fizicheskoi Khimii (1962), 36, 1890-6

CODEN: ZFKHA9; ISSN: 0044-4537

DOCUMENT TYPE: Journal LANGUAGE: Unavailable

IT 100272-43-3, Fluoran, 3'-amino-6'-hydroxy-, acetate

(preparation of) 100272-43-3 CAPLUS

CN Fluoran, 3'-amino-6'-hydroxy-, acetate (7CI) (CA INDEX NAME)

AB cf. CA 50, 7591g, 16383gi, 16393e. Reversible bleaching by N2H4 vapor of solid layers of Acridine Red, Pyronine G, Rhodamines S, B, 3B, G, 56, and 66 applied on quartz plates by precipitation from alc. solns. or by distillation in

vacuo was studied by the changes in the absorption spectra. The results showed that decoloration was independent of the sign of the ion of the xanthene dye (cf. CA 56, 7468f). The absorption spectra of the solid layers of colorless compds. formed by N2H4 vapor and Rhodamine dyes exhibited bands with maximum at 232-238, 265-276, and 302-317 m $\mu$ . The position of the peaks depended on the end groups NMe2, NHEt, NHEt2, or NHMe. Exposing the colorless layers to the air decomposed the product and the original colored compound was restored, but the maximum of the spectra shifted by .apprx.10 m $\mu$  toward shorter  $\lambda$ . The dye was only partially regenerated. The new product appeared to be a solid solution of the original dye in the colorless compound Rhodamine 66 + N2H4 was the most stable compound It could be distilled in vacuo at 100-20° without decomposition On the other hand, compds. of Rhodamine S and Sulforhodamine B with N2H4 decomposed, even in vacuo. The results suggested the following formula for these compds.: A3CN2+H4Cl-, where C is the central C atom of the dye.

=> log y COST IN U.S. DOLLARS

SINCE FILE TOTAL ENTRY SESSION 525.44 688.70

FULL ESTIMATED COST

SINCE FILE TOTAL ENTRY SESSION

CA SUBSCRIBER PRICE

-77.38 -77.38

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DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)